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AUTHOR Cruickshank, Donald R.; And Others
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ABSTRACT

This study was conducted in order to make public the collective criteria that have been used by the National Council for the Accreditation of Teacher Education (NCATE), since its inception in 1954. The report addresses the following issues: the standards to which professional education units in colleges and universities have been held when national certification is sought; the criteria used in judging preparation programs; and those standards which have remained constant or have changed since 1957. Copies of all NCATE standards and their revisions dating to their 1957 inception were sought. Six major targets (governance; admission and retention of students; faculty teaching, research, and service; curriculum; evaluation; and the context and resources supporting professional programs) were selected for interpretation. Findings suggest a very large number of criteria (145) are viewed as appropriate and necessary for use in judging preparation programs. About half of the original criteria introduced survive. They reflect many beliefs and values; they seem to be given equal importance, but vary in clarity; and they omit some important qualities of preparation programs. A second phase of this study will examine the validity of the standards to which professional education has been held. (LL)

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The Legacy of NCATE:

An Analysis of Standards and Criteria for Compliance Since 1957

Donald R. Cruickshank

Joy D. McCullough

Richard T. Reynolds

Marilyn B. Troyer

Josue Cruz, Jr.

ABSTRACT

The purpose here is to make public the collective criteria that have been used since NCATE's inception in 1954 to judge the preparation of educational professionals, particularly teachers. The aggregation of the criteria permits us to know what we have been saluting for over thirty years. The next step is to inquire into the individual and collective validity of the criteria.

Overall, our two part study will address the questions, What are the standards to which professional education units in colleges and universities have been held when they seek national accreditation? and, To what extent are the standards valid? Results of pursuit of the first question are reported here.

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Standards regulating teacher preparation, promulgated mostly by state teacher education approval agencies and the National Council for Accreditation of Teacher Education, are intended to assure better preparation of educators, particularly teachers. However, as made clear in a special report by Olson, "Teaching Our Teachers" (Education Week, 1991), such standards also have negative, unanticipated consequences. Among them are that they may increase obstacles to entering teaching and trivialize the process of teacher preparation. Moreover, since state approval and national accreditation standards regularly are revised, teacher preparation programs always are kept in a state of flux.

The approval and publication of the 1990 Standards, Procedures and Policies for the Accreditation of Professional Education Units by the National Council for the Accreditation of Teacher Education (NCATE) marks a third of a century of voluntary national peer regulation of teacher preparation, and more recently, all professional education. Given this relatively long period of NCATE regulatory activity, it seems prudent to gather and look at the accumulated sets of accreditation standards written over that time-span to determine what has and has not been handed down to us and to identify and reflect upon what is the overall collective wisdom.

Background of the study. One hallmark of a profession is that it is self-regulating. The teaching profession accepted this maxim in 1946 when the National Education Association created the National Commission on Teacher Education and Professional Standards (TEPS) and charged it to establish minimum standards for the preparation of teachers. The TEPS commission brought teachers together with other stakeholders including representatives of the American Association of Colleges for Teacher

Education, The National Association of State Directors of Teacher Education and Certification, and the Council of Chief State School Officers. As a consequence, a proposal was made and enacted that created the National Council for the Accreditation of Teacher Education (NCATE) which, in turn, would establish and enforce voluntary national standards regulating teacher preparation. The first set of NCATE Standards seems to have been issued in 1957 and a number of major and minor revisions have ensued.

According to Roth and Pipho (1990), only scant scholarly attention has been given to any or all of the NCATE Standards *or indeed* the standards that states require for teacher education program approval.[1] This is incredible and regrettable in light of the fact that nearly 1300 colleges and universities prepare teachers and are regulated by either or both national accrediting and state approval agencies. Consequently, the regulations or standards under which they labor should be inspected and validated. This study is a step in that direction.

Purpose of the study. The intention of this study is to respond to two general and four specific questions. The first general question is, What NCATE criteria used in judging preparation programs have remained constant and which have changed? The four specific questions all are subsumed therein. They are: (1) What criteria introduced in the 1957 standards remain essentially the same today? (2) What criteria introduced

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[1]Roth and Pipho identify a total of only six studies since 1951.

after 1957 remain essentially the same today? (3) What criteria introduced in 1957 do not exist today? and (4) What criteria introduced after 1957 do not exist today? The second general question guiding the study is, What is the overall, aggregate or collective wisdom of persons who framed the various sets of standards?

Procedure. To answer the aforementioned questions, copies of all NCATE Standards and their revisions dating to their inception 1957 were sought. Next, the eleven standards obtained were inspected to determine the major targets toward which the NCATE criteria were directed. They were found to be six in number: (1) *governance*, (2) admission and retention of *students*, (3) *faculty* teaching, research and service, (4) *curriculum*, (5) *evaluation*, and (6) the *context and resources* supporting professional programs.[2]

At this point it became clear that the study required construction and interpretation of six matrices, one for each target. Each matrix was

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[2]The 1957 and 1960 Standards contained a section and standard on Objectives of Teacher Education requiring universities to have a written statement wherein the following were to be addressed: program objectives, school positions for which graduates were prepared, how the institution was attempting to improve schools, and the intellectual qualities the teacher education program was designed to develop. With the advent of the 1967 Standards "objectives" were to be "reflected in the rationale and content of the various programs offered, in the policies which are implemented, and in the allocation of personnel and physical resources to support the program" (p.8).

bounded by eleven columns (one for each issue of the standards since 1957), and rows containing criteria NCATE proposed over the years that were directed toward the target. A partial example of the matrix on *governance* appears in Table 1.

Table 1 here

Several things complicated completion of the six matrices. First, in the case of "governance," this particular focus had been addressed in the eleven sets of standards under various headings. At the outset, "governance" was subsumed under "organization and administration." By 1969 that appellation gave way to "control of the program." The term "governance" was first put in use in 1977 and was extended in 1986 to "governance and resources." This problem occurred when studying other targets too.

Somewhat relatedly, criteria have been moved about from one of the six targets or foci to another. For example, in some cases, criteria related to the governance of teacher education are addressed under "faculty" and vice versa.

A third obstacle encountered was that, over time, phraseology changed. For example, each set of standards requires control of all teacher preparation be in the hands of a single university unit or agency. However that requirement has been stated in a number of ways, some more and some less clear.

Relatedly, requirements that once were explicit become more implicit or vice versa, for example, student record keeping is now more implied.

The investigators did their best to extract answers to the study's questions given these complications, but there is reason to be cautious until others repeat the task to ensure the results are reported accurately.

Results. Results are reported for each of the six NCATE targets: governance, students, faculty, curriculum, evaluation and context and facilities.

Governance

As mentioned earlier, examination of the eleven sets of standards reveals that "governance" has been addressed under different headings: organization and administration, control of the program, and governance and resources.

Constants. The first subquestion is addressed herein: *What criteria introduced in 1957 have remained essentially the same throughout?* Four of the original seven governance related criteria have withstood the test of time. One is mentioned in some form or another in every issue. That is,

1. *A single designated campus agency or unit should be responsible for coordinating professional education programs.*

The three other criteria, too, have more or less persisted; that is, they are mentioned in some way both in 1957 and 1990 and in most, but not all intervening issues. They are:

2. *A professional educator should be responsible for all unit functions.* (Related to 1 above)
3. *The agency or unit should be organized to facilitate specific professional education functions, namely: policy making and*

administration with regard to establishing goals, designing, implementing and evaluating programs, admitting students, selecting faculty, staff development; identifying resources; and, overall coordination, articulation and unity.

4. *Policies governing professional education should be agreed upon and applied consistently across all programs.* (Related to 3 above)

Changes. The remaining three subquestions are answered: What criteria introduced after 1957 have persisted until today? What criteria introduced in 1957 have disappeared? and, What regulations inserted after 1957 have vanished?

Eight criteria introduced after 1957 stand. In the 1967 and 1969 issues of the standards respectively, two regulations appeared. They stipulated that:

5. *Faculty should be in control of all phases of graduate programs.*

and

6. *Faculty should be systematically involved in shared decision making related to the undergraduate program.*

Furthermore, related to 5 above the 1987 and 1990 Standard revisions call for such faculty control to be shared with other professional educators including teachers and students (see 1990 "criteria of compliance 75").

Increasingly greater emphasis has been placed on the function of planning. In the earliest standards under the category "Objectives of Teacher Education," institutions merely were asked to describe program

goals. However, from 1967 until the present, long range planning is required[3] and in the 1986-1990 standards the requirement is to the effect that:

7. *Long-range planning for both basic and advanced programs should exist and it should be part of the university's overall plan.*

Beginning in 1969, the standards recognized that the quality of individual courses "offered for the convenience of school personnel" might be below average. By 1986 that concern was extended to off-campus programs, centers and branch campuses, the criterion being that:

8. *Courses and programs taught nights or weekends at a location other than the main campus should be of the same quality as regular academic work.*

Nineteen seventy-nine saw the introduction of a regulation that also has persisted relating to defining all agencies that affect professional programs, making clear each one's role, and establishing meaningful liaison among them. By the 1986 issue it is clear that:

9. *The agency or unit responsible for coordinating professional education programs should be responsible for establishing linkages with other agencies both inside and outside the university which also are professional education stakeholders.*

The 1986 and subsequent revisions add three additional regulations related to governance. They are that:

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[3]During this period this requirement was subsumed under NCATE category "Evaluation etc."

10. *The education unit's mission should be in keeping with and related to that of the university;*

11. *Students and faculty should be guaranteed due process;*

and

12. *Students and practicing teachers should be involved in policy making.*

Four regulations introduced in 1957 have disappeared.

In the 1957 and 1960 issues and again in 1979 and 1982 there was a mandate that:

13. *All responsibilities for either policy enactment or implementation of specific professional education functions should be fixed.*

The 1957 and 1960 issues noted that:

14. *The education unit should be guided by clear objectives.*

and that:

15. *It should test new and promising programs.*

Finally, between 1977 and 1982 under governance there was a mandate that:

16. *A purpose of the education unit should be to prepare teachers to provide instruction in a multicultural society.*

Thus only one governance related criterion introduced post 1957 has been dropped.

Table 2 is a display of the 16 criteria related to governance and the standards in which they are found.

Table 2 here

Discussion of findings for governance.

A total of 16 criteria related to the governance of professional education have been noted. Four have been more or less constant since 1957. Eight introduced after 1957 still are in force. Thus it might be said that 12 have been survivors. The four losers would seem to be requirements that: fix responsibility for policy enactment and implementation; assure the education unit is guided by clear objectives; require the unit test new and promising programs; and that one purpose should be to prepare teachers to work in a multicultural society.

The 16 criteria can be thought about as related either to responsibility for professional education (Who is responsible?) or function (For what?).

With regard to responsibility, the standards seem to tell us that:

1. A single agency or unit should be responsible for professional education.
2. That unit should be governed by policies that:
   a. are formulated and agreed upon by faculty, practicing teachers and students, and
   b. are consistently applied across all program areas.
3. Faculty should be in control of all phases of the graduate program.
4. A single professional educator should be responsible for organization and administration of all functions (although

functions related to graduate education may be a shared responsibility with a university graduate school).

5. Responsibility for all functions should be assigned, made public, and coordinated.*

With regard to the professional education unit's functions they would seem to include:

1. General policy enactment and administration,
2. Establishing clear goals within the university's mission,
3. Designing, implementing, and evaluating unified, articulated programs (with particular attention to assure courses taught nights and weekends off-campus are of quality),
4. Admitting and mentoring students,
5. Selecting and developing faculty,
6. Conducting long-range planning,
7. Identifying resources,
8. Establishing linkages with stakeholders inside and outside the university,
9. Guaranteeing due process,
10. Testing promising programs,* and
11. Preparing educational personnel for a multicultural, diverse society.*

This would seem to be NCATE's collective wisdom related to the governance of professional preparation within the university setting.

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*Criteria marked with an asterisk are those no longer cited.

Students

The second target given attention by NCATE is related to students and student services. Headings for this section ranged from "student personnel programs and services for teacher education" to "students in teacher education" to simply "students".

Constants. What criteria introduced in 1957 have remained essentially the same throughout? Three of the original six requirements have remained constant since the initial standards were introduced. They are:

1. *Only persons of professional promise should be admitted to and retained in preservice education programs. Increasingly, criteria for admission have become more numerous and specific.*
2. *Initial screening and later monitoring students should occur at various points in their program.*
3. *Teacher education units should have a well-defined plan of counseling delivered by competent persons.* While initially the intention was merely to provide admissions and program information to potential education students, gradually the counseling function has shifted to ensure that students in the program are nurtured to its completion.

Changes. The following questions will be addressed in this section: What criteria introduced after 1957 have persisted until today? What criteria introduced in 1957 have disappeared? and, What regulations inserted after 1957 no longer exist?

Nine changes introduced at a variety of times after 1957 have persisted essentially in the same form today.

In the 1967 issue of the standards, three new regulations appeared. They stipulated that:

4. *At regular intervals, teacher education units should take into account the achievement of prospective teachers in each area of the professional studies as a basis for retention in the program.*
5. *Teacher education units should engage in a process of continuous selection whereby only those candidates who demonstrate personal characteristics appropriate to the requirements of teaching will be retained in the program.* and
6. *A comprehensive system, which includes more than one measure, should be used to assess the personal characteristics and basic skills proficiency of candidates preparing to teach.*

Further, in 1969 one additional regulation was added:

7. *Alternative admissions criteria should exist in order to permit participation of individuals from underrepresented groups and other students as determined by the unit.*

Two more regulations were added in 1977:

8. *The unit's admission procedures should encourage the recruitment of a culturally diverse student population with potential for professional success in the schools.*
9. *Admissions standards and acceptable levels of performance for exit from programs should be published and monitored.*

Finally, three additional standards were introduced in 1986 and still remain today.

10. *Students admitted to professional education programs should be proficient in communication and other basic skills and exhibit depth and breadth in the liberal arts and their teaching specialty.*
11. *The unit should assess the academic and professional competence of education students prior to issuing or recommending certification.*
12. *The unit's advisory system should provide education students access to publications that describe program requirements and institutional policies, including clear statements of due process. Students also should be made aware of the availability of social and psychological counseling services within the institution.*

Three requirements established in the first Standards have not persisted. Two requirements were only in the 1957 issue of the standards.

13. *Teacher education units should make provisions for informing secondary and college students about the nature of the teaching profession, requirements for entry, and the teacher education program offered by the institution.*
14. *Teacher education units should be prepared to accept full responsibility for the level of transfer students completing the curricula and for those students transferring to other education agencies or institutions.*

The third requirement established in the first Standards that did not persist was dropped after the 1969 issue.

15. *Teacher education units should maintain a comprehensive system of records for all persons preparing to teach.*

Nine changes introduced after 1957 did not persist.

Beginning in 1960 and continuing through 1982, the standards required that:

16. *Criteria for admission and retention in the education unit should be in addition to the general policies and procedures for admitting students to the institution as a whole.*

Two additional criteria were added in 1967 that stood through the 1982 issue.

17. *Teacher education units should make provision for the expression of views of prospective teachers on teacher education programs.*

18. *Students admitted to advanced programs must give evidence of the likelihood of successful program completion.*

Beginning in 1969 and continuing through 1982, the standards required that:

19. *Programs of study for students in advanced programs should be jointly planned by the student and a faculty member.*

20. *Programs of study for doctoral candidates should be approved by a faculty committee.*

21. *Sponsorship of each thesis, dissertation, or field of study must be assigned to a qualified faculty member.*

From 1977-1982 the standards required that:

22. *Student advisory services should provide for advisement, from orientation to teaching through professional placement.*

23. *Follow-up counseling of teacher education students screened out of teacher education programs should occur in order to assist such students in redirecting toward another goal.*

One regulation was mentioned only in 1967. It required that:

24. *Students admitted to advanced programs in education should give evidence that their professional objectives are compatible to the program selected.*

Table 3 is a display of the 24 criteria related to students and the standards in which they are found.

Table 3 here

Discussion of findings for students.

Twenty-four criteria related to student personnel programs and services for teacher education have been noted. Three have been constant since 1957. Nine standards introduced after 1957 are still in force. Thus it might be said that 12 are survivors. Half have disappeared: six having to do with advising and counseling students, four related to admissions and retention; one related to record keeping; and one related to student involvement in teacher education programs. These 24 criteria may be thought about under the following four rubrics: (a) admissions/retention, (b) advising/counseling, (c) record keeping, and (d) student involvement in professional education programs.

With regard to admissions/retention, the standards seem to tell us that:

1. Only persons of professional promise should be admitted to and retained in preservice education programs.
2. Students admitted to professional education programs should be proficient in communication and basic skills and exhibit depth and breadth in the liberal arts and their teaching specialty.
3. A comprehensive evaluation system, which includes multiple measures, should be used to assess students for admission and retention.
4. Admissions standards and acceptable levels of performance for exit from programs should be published and monitored.
5. Criteria for admission and retention in the education unit should be in addition to the general policies and procedures for admitting students to the institution as a whole.*
6. Alternative admissions criteria should exist to encourage participation of individuals from under-represented groups.
7. The unit's admission procedures should encourage the recruitment of a culturally diverse student population with potential for professional success in the schools.
8. Initial screening and later monitoring students should occur at various points in their program.
9. At regular intervals, teacher education units should take into account the achievement of prospective teachers in each area of professional studies as a basis for retention in the program.
10. Teacher education units should engage in a process of continuous selection whereby only those candidates who demonstrate personal

characteristics appropriate to the requirements of teaching will be retained in the program.

11. The unit should assess the academic and professional competence of education students prior to issuing or recommending certification.
12. Units should be prepared to accept full responsibility for the quality of students and standards of work of transfer students completing the curricula and for those students transferring to other educational agencies.*
13. Students are admitted to advanced programs in education on the basis of evidence which (a) shows the pertinence of their professional objectives to programs selected, (b) confirms adequacy of educational background, and (c) give evidence of the likelihood of successful program completion.*
14. Students admitted to advanced programs in education must show evidence that their professional objectives are compatible to the program selected.*

With regard to advising and counseling services, the standards require that:

1. Teacher education units should have a well-defined plan of counseling delivered by competent persons.
2. Student advisory services should provide for advisement, from orientation to teaching through professional placement.*
3. Follow-up counseling of teacher education students screened out of the teacher education program should occur.*

4. The unit's advisory system should provide education students access to publications that describe program requirements and institutional policies, including clear statements of due process, and students should be made aware of the availability of social and psychological counseling services in the institution.
5. Programs of study for students in advanced programs should be jointly planned by the student and a faculty member.*
6. Programs of study for doctoral candidates should be approved by a faculty committee.*
7. Sponsorship of each thesis, dissertation, or field study must be assigned to a qualified faculty member.*
8. Teacher education units should make provisions for informing secondary and college students about the nature of the teaching profession, requirements for entry, and the teacher education program offered by the institution.*

With regard to record keeping, the standards indicate that:

1. A comprehensive system of records should be maintained on all students.*

With regard to student involvement in the teacher education program, the standards seem to tell us that:

1. Teacher education units should make provision for the expression of views of prospective teachers on the teacher education program.*

This would seen to be NCATE's collective wisdom related to the student personnel programs and services for teacher education.

Faculty

Each of the sets of standards includes regulations regarding members of the education professoriate.

Constants. Over the period of 1957 until the present, 5 of the original 8 requirements have remained essentially the same. Four are mentioned in some form or another in every issue:

1. *Faculty should demonstrate a commitment to and evidence of inquiry activities that support their field of specialization.*
2. *Faculty should have expertise in their fields to qualify them for their assignments in professional education programs (usually means post-graduate study and/or the terminal degree).*
3. *Faculty should continuously demonstrate competence in teaching.*
4. *Part-time and adjunct faculty should meet the requirements for appointment to the full-time faculty and are employed when they can make a special contribution to the teacher education program.*

One regulation is mentioned in both 1957 and 1990, and in some but not all intervening issues:

5. *Faculty should be actively involved in professional associations and provide education-related services at the local, state, national, and/or international levels in their areas of expertise and assignment.*

Changes. Several types of changes occurred in the standards related to faculty from 1957 to the present. Fourteen requirements were introduced

after 1957 and persisted until today. Three requirements present in 1957 no longer exist. Two requirements introduced after 1957 have subsequently disappeared.

In 1960 and in all subsequent issues, the standards require that:

6. *Members of the teacher education faculty should have continuing association with elementary and secondary schools.*

In 1967 and all subsequent revisions, the standards require that:

7. *Provision should be made for supporting services that permit faculty members to fulfill their instructional, research, and other responsibilities at a high level of performance.*

Beginning in 1977 and continuing through today, the standards require that:

8. *The composition of the faculty in the education unit should reflect cultural diversity.*

Seven new standards related to the faculty were introduced in 1986 and still exist today.

9. *Faculty should view themselves as members of the training and research arms of the teaching profession.*
10. *Supervisors of field-based experiences should have had training in supervision as well as professional experiences in the school setting in which that supervision takes place.*
11. *The assignment of graduate assistants to instructional roles should be limited to their areas of expertise as demonstrated by degrees held, formal study, and experience.*

12. *Cooperating teachers should have a minimum of three years of experience in the areas they are supervising and should be certified for the areas in which they are teaching or working.*

13. *Evaluation of faculty should be based upon data designed to identify continuing competence in teaching, scholarly competence, and service. Evaluation data should form the basis for decisions on salary, promotion, and tenure.*

14. *There should be sufficient numbers of faculty to support programs offered by the unit.*

15. *Each advanced degree program leading to a doctorate should have at least 3 full-time faculty who have earned doctorates in the field of specialization for which the degree is offered.*

In 1967, and then again beginning in 1986 and remaining until today, standards indicate that:

16. *The teaching load of undergraduate faculty should be no more than the equivalent of twelve semester hours.*

In 1986, two additional standards appeared and have remained:

17. *Instructional resources for supervision of practicum experiences should not exceed a ratio of 18 full-time equivalent students to one full-time equivalent faculty member* **(under the heading Governance and Resources).**

18. *Evaluations of faculty should be systematically used to improve teaching, scholarly and creative activities, and service within the unit.*

In 1987, one more standard appeared and has remained. It stipulates that:

19. *The use of part-time faculty and graduate students who teach in professional education programs should be limited.*

These nineteen regulations, then, have survived as guidelines for teacher education faculty. Two regulations appeared in 1957 and 1960 but do not remain today:

20. *A majority of the courses in professional education offered during any semester or term should be taught by regular full-time faculty members.*

21. *No one person should be assigned to teach all the professional education courses.*

The following requirement appeared only in the 1957 standards.

22. *Ranks, degrees, experience backgrounds, salaries, and conditions of work should compare favorably with other faculty members carrying work of comparable level in the institution.*

Two requirements introduced after 1957 have subsequently disappeared. From 1967-1982 the standards required that:

23. *Faculty in education offering a doctorate should include at least one full-time person with specialization in the field in which a degree is offered, and 3-5 persons who hold the doctorate in complementary fields for each specialization field.*

From 1977-1982, it was required that:

24. *Institutional policies should reflect a commitment to multicultural education in the recruitment of full-time faculty members.*

Table 4 is a display of the 24 regulations related to the teacher education faculty and the standards in which they are found.

Table 4 here

Discussion of findings for faculty.

Twenty-four requirements related to the teacher education faculty have been identified. Five have been constant or more so since 1957. Fourteen introduced after 1957 persist until today. Thus nineteen have survived. The five nonsurvivors seem to be requirements that: regular full-time faculty teach the majority of courses; no one person teach all professional courses; education faculty should compare favorably with other faculty; number of faculty for doctoral programs is indicated; and policies should reflect a commitment to multiculturalism. These 24 criteria can be thought about as related to: qualifications of faculty, faculty load, faculty roles, or evaluation of faculty. By far the greatest number, ten, relate to the qualifications of faculty members. Nine focus on faculty load, three on faculty roles, and two on evaluation of faculty members.

With regard to faculty qualifications, the standards require that:

1. Faculty should show evidence of scholarly inquiry and productivity.
2. Faculty should have earned the terminal degree or otherwise demonstrate exceptional expertise.
3. Faculty should demonstrate competence in teaching.

4. The composition of the faculty should reflect cultural diversity.
5. Supervisors of field experiences should be trained in supervision and should have experience in the school setting.
6. Graduate assistants' instructional assignments should be limited to their areas of expertise as demonstrated by degrees held, formal study, and experience.
7. Cooperating teachers should be experienced and certified for the areas in which they are teaching.
8. Part-time and adjunct faculty should meet the requirements for appointment to the full-time faculty and are employed when they can make a special contribution to the teacher education program.
9. Institutional policies should reflect a commitment to multicultural education in the recruitment of full-time faculty members.*
10. Ranks, degrees, experience backgrounds, salaries, and conditions of work should compare favorably with other faculty members carrying work of comparable level in the institution.*

With regard to faculty load, the standards indicate that:

1. There should be sufficient numbers of faculty to support the programs offered.
2. The teaching load for undergraduate faculty should be no more than 12 semester hours.

3. There should be no more than 18 full-time equivalent students per one full-time equivalent faculty member for practicum experiences.
4. No one person should teach all the professional education courses.*
5. Adequate support services should be available to faculty members.
6. Part-time faculty and graduate students who teach in professional education programs should be limited.
7. Faculty in education offering a doctorate should include at least one full-time person with specialization in the field in which a degree is offered, and 3-5 persons who hold the doctorate in complementary fields for each specialization field.*
8. A majority of professional education courses should be taught by regular full-time faculty members.*
9. Faculty in education offering a doctorate should include at least one full-time person with specialization in the field in which a degree is offered, and 3-5 persons who hold the doctorate in complementary fields for each specialization field.

With regard to faculty <u>roles</u>, the standards require that:

1. Faculty members should be involved in professional associations and should provide education related services at a variety of levels.
2. Faculty should be regularly involved with elementary and secondary schools.

3. Faculty should view themselves as members of the training and research arms of the teaching profession.

Finally, with regard to evaluation of faculty members, the standards require that:

1. Evaluation should be based on reviews of teaching, scholarship, and service; and should form the basis for salary, promotion, and tenure decisions.
2. Evaluations of faculty should be systematically used to improve teaching, scholarly and creative activities, and service within the unit.

Curriculum

The NCATE curriculum focus has been addressed under a variety of titles. In most cases, except in 1967, 1986, 1987, and 1990, it went by the name Curricula for Teacher Education, or Curricula for Basic (or Advanced) Programs. The exceptions--in 1967 the nomenclature became Programs of Instruction for Teacher Education and in 1986, 1987, and 1990 the Knowledge Bases for Professional Education.

Constants. Five of the originial eleven criteria have had staying power. Three are mentioned in some form or another in every issue.

1. *A sound general education should ensure that all teachers will be broadly educated and cultured persons.*
2. *There should be judicious selection of field sites and the establishment of exemplary working relationships between those sites and the university campus.*

3. *The curriculum should be well planned and sequenced.*

Two other criteria have persisted, more or less. They are mentioned in some way in both the 1957 and 1990 standards and in some but not all the intervening revisions.

4. *An institution should plan all curriculum according to principles that the faculty can defend.*

5. *The total pattern for each teacher education curriculum should provide general education, professional education, and subject specialization.*

Changes.

Five requirements added after the 1957 standards have persisted. Three of these requirements were added in 1967.

6. *The curriculum should be jointly determined by academic and professional faculty.*

7. *Guidelines developed by national learned societies and professional associations should be used in program planning.*

8. *The scope of the general education curriculum should include such areas as mathematics, science, history, philosophy, literature, the arts and communication skills.*

In 1977 an additional requirement was added.

9. *Attention should be given to multicultural education in both the general and professional education components and field-based experiences.*

One requirement was added in 1982 that continues to the present.

10. *The curriculum should provide the knowledge and skills required in the education of exceptional learners.*

Six regulations established in the 1957 document have vanished. Two requirement were mentioned only in the 1957 issue.

11. *Institutions offering graduate curricula for school personnel should provide substantial field service to the schools relating to the graduate curricula offered.*
12. *Summer study should be restricted to elective courses with limitations imposed upon both undergraduates and graduate students.*

Three requirements introduced in 1957 disappeared after 1960.

13. *Curriculum credit earned through part-time extension or off-campus study courses should be limited.*
14. *Persons with full-time employment should be limited in the academic work they may take while so employed.*
15. *Students should be expected at some point to commit themselves to a curriculum and follow it to completion.*

Mention is made from 1957-1969 that:

16. *Undergraduate education should occur in no less than four years.*

Eighteen requirements, introduced after 1957, have subsequently disappeared.

Each of the following two requirements appeared in one issue only, 1960 and 1967 respectively.

17. *The professional education sequence should include child growth and development, educational psychology, methods, and laboratory experiences.*
18. *Prospective teachers should be made aware of the basic nature of educational research.*

Beginning in 1967, and continuing through 1982, standards require that:

19. *General studies should constitute at least one-third of a four year program.*
20. *The general studies component should be taught with generalizability rather than academic specialization as a primary objective.*
21. *Specific curricular-instructional experiences should be required such as engaging students in simulations.*
22. *A distinction should be made, in the content for the teaching speciality, between the knowledge to be taught to pupils and the teacher's background knowledge.*
23. *General and special methods courses should be taught as the application of teaching and learning theory.*
24. *Educational personnel should partake of both a general and professional curriculum.*
25. *The professional education component should include content for the teaching specialty, humanistic and behavioral studies, teaching and learning theory, and substantial on- and off-campus laboratory experience.*

26. *At least 1/2 of the courses and seminars in each advanced program (master's level) in education should be courses which exclude undergraduates.*
27. *Each advanced curriculum should include the study of research methods and findings.*
28. *Each doctoral curriculum should include the designing and conducting of research.*
29. *Policies should preclude the granting of graduate credit for study which is remedial or which is designed to remove deficiencies in meeting entrance requirements to advanced programs.*
30. *Full-time residential study should be required for students pursuing the doctorate.*
31. *Programs of study should be individualized at the advanced level.*

One requirement added in 1967 remained through the 1970 issue.

32. *Teacher education faculty should control admissions, planning, staffing and degree requirements.*

Two requirements added in 1969 and 1977 respectively remained through 1982.

33. *At least 2/3 of the courses and seminars in each doctoral program in education should be courses which exclude undergraduates.*
34. *Students should participate in program design, evaluation and modification processes.*

Table 5 is a display of the 34 criteria related to curriculum and the standards in which they are found.

Table 5 here

Discussion of findings for curriculum.

Across the years, framers of the Standards seem to have lent their support to the following principles and rules in the area of curriculum for teacher education. Five requirements have been constant or more so since 1957. Five introduced after 1957 are still in force. Thus it appears that 10 have been survivors. That means that 24 out of the 34 criteria have not persisted. Seven of these nonsurvivors deal with the total undergraduate curriculum. Two refer to requirements for general education while five deal with professional education requirements. Nine deal with the graduate curriculum and one deals with the role of research in teacher preparation programs. These 34 criteria may be thought about under the following five categories: (a) total undergraduate curriculum, (b) general education, (c) professional education, (d) role of research and (e) graduate curriculum.

With regard to the total undergraduate curriculum, the standards indicate that:

1. Educational personnel should partake of both a general and professional curriculum.*
2. The curriculum should be well-planned and sequenced.

3. An institution should plan all curriculum according to principles that the faculty can defend.
4. Curriculum credit earned through part-time extension or off-campus study courses should be limited.*
5. Persons with full-time employment should be limited in the academic work they take while so employed.*
6. Summer study should be restricted to elective courses with limitations imposed upon both undergraduates and graduate students.*
7. Undergraduate education should occur in no less than four years.*
8. Students should be expected at some point to commit themselves to a curriculum and follow it to completion.*
9. The curriculum should be jointly determined by academic and professional faculty.
10. Guidelines developed by national learned societies and professional associations should be used in curriculum planning.
11. Attention should be given to multicultural education in the general and professional education components and field based experiences.
12. The curriculum should provide knowledge and skills required in the education of exceptional learners.
13. The total pattern for each teacher education curriculum should provide general education, professional education, and subject specialization.

14. Institutions offering graduate curricula for school personnel should provide substantial field service to the schools relating to the graduate curricula offered.*

With regard to general education, the standards seem to tell us that:

1. A sound general education should ensure that all teachers will be broadly educated and become cultured persons.
2. General education should include such areas of study as: mathematics, science, history, philosophy, literature, the arts and communication skills.
3. General studies should constitute at least one-third of a four year program.*
4. The general studies component should be taught with generalizability rather than academic specialization as a primary objective.*

With regard to professional education, the standards seem to tell us that:

1. Professional studies should include: Content for the Teaching Specialty (sometimes called specialty studies), Humanistic and Behavioral Studies (foundation studies), Teaching and Learning Theory (pedagogical knowledge), and substantial on and off-campus laboratory experience.* It should be noted that although "Content for the Teaching Specialty" is a required component of the undergraduate curriculum, it is no longer subsumed under the Professional Studies component.

2. A distinction should be made, in the content for the teaching specialty, between the knowledge to be taught to pupils and the teacher's background knowledge.*
3. General and special methods courses should be taught as the application of teaching and learning theory.*
4. Field sites should be judiciously selected and exemplary working relationships between those sites and the university campus should be established.
5. Specific curricular-instructional experiences should be required, such as engaging students in simulations.*
6. The professional education sequence should include child growth and development, educational psychology, methods, and laboratory experiences.*

With regard to the role of research, the standards seem to tell us that:

1. Prospective teachers should be made aware of the basic nature of educational research.*

With regard to the graduate curriculum, the standards require that:

1. At least 1/2 of the courses and seminars in each advanced program (master's level) in education should be courses which exclude undergraduates.*
2. At least 2/3 of the courses and seminars in each doctoral program in education should be courses which exclude undergraduates.*
3. Each advanced curriculum should include the study of research methods and findings.*

4. Each doctoral curriculum should include designing and conducting research.*
5. Policies should preclude the granting of graduate credit for study which is remedial or which is designed to remove deficiencies in meeting entrance requirements to advanced programs.*
6. Teacher education faculty should control admissions, planning, staffing and degree requirements.*
7. Students should participate in program design, evaluation, and modification processes.*
8. Full-time residential study should be required for students pursuing the doctorate.*
9. Programs of study should be individualized at the advanced level.*

Evaluation

The fifth target given attention by NCATE is evaluation. A particular section with this title did not appear until 1967. Although the first two sets of standards did not have a special section labelled evaluation, it was subsumed within the "student personnel records and placement" standard. Likewise, in the 1986 through 1990 standards, evaluation was subsumed within "Relationship to World of Practice", "Governance and Resources", and "Knowledge Base for Professional Education" standards. In order to appreciate the intent of evaluation within the context of standards as set forth by NCATE, several observations are worthy of note:

(a) careful review of the standards from 1967 to the present indicates that program evaluation strategies have played an integral part as noted in the documentation requirements, and (b) long-range planning for teacher education programs should be reflected as an integral part of the institution's overall plan. It should be noted that this standard poses particular concerns. The essence of the evaluation standard, as defined in the standards, encompasses three areas: (a) evaluation of graduates, (b) program evaluation, and (c) long-range planning. Although a separate standard of evaluation existed from 1967 to 1982, during those same years almost all other standards included some reference to evaluation. It is this that may cause confusion. Our purpose here, is to study the specific standards of evaluation. In the years where a separate standard of evaluation does not exist (1957, 1960, 1986, 1987, and 1990) a search was made to determine if any of the key evaluation requirements were subsumed under other headings. In many cases this was found to be true and they are included here.

Constants. What criteria introduced in 1957 have remained essentially the same? The sole evaluation criterion that has been mentioned in some way in all issues is that:

1. The plan followed in the evaluation of program effectiveness should be described.

Changes. Several changes have occurred in the evaluation standards throughout the years. Five requirements introduced after 1957 have persisted to the present standards. Six requirements introduced after 1957 have since disappeared. No criteria introduced in 1957 have subsequently disappeared.

Five requirements introduced after 1957 have persisted to the present. All of these requirements were introduced in 1967.

2. Results obtained from evaluating graduates should be used to develop and improve teacher education programs.
3. Teacher education units should keep abreast of emerging evaluation techniques.
4. Systematic efforts should be made to evaluate the quality of graduates.
5. Evidence of the quality of teachers the unit prepares should be available.
6. A long-range plan to improve teacher education programs should exist and should be utilized.

The following six criteria were introduced after 1957 and have since disappeared. In 1960, and then again from 1969-86 standards required that:

7. Program objectives should be continuously reviewed.

From 1967-70 the standards required that:

8. Evaluation should be conducted by the best means presently available and improved means of evaluation should be sought.

Introduced in 1967 and continuing through 1982, it was stipulated that:

9. Evaluation of graduates should be done when they complete the program of study and when they enter the teaching profession.

From 1969-1982, the standards required that:

10. Evaluation of graduates should be based upon their performances in relation to program objectives.

Two requirements introduced in 1977 remained through the 1982 issue.

11. The long-range plan of the institution should reflect a commitment to multicultural education.
12. Regularly evaluating programs and using the results of evaluation to modify and improve programs should occur.

Table 6 is a display of the 12 criteria related to evaluation and the standards in which they are found.

Table 6 here

Discussion of findings for evaluation.

A total of twelve criteria related to evaluation have been identified. Only one has been constant since 1957. Five introduced after 1957 still exist. Thus 6 have survived. Again, one half have not survived. These 6 deal with: commitment to multicultural education, means of evaluation, evaluation of graduates, program objectives, and regulating evaluation and using results of evaluation. These 12 criteria may be aggregated under the following three headings: (a) evaluation of graduates, (b) program review, (c) long-range planning.

With regard to the evaluation of graduates, the standards seem to tell us that:

1. The institution should have evidence of the quality of the teachers it has prepared.

2. Evaluation is to be conducted with the best means presently available, but improved means to make such evaluations constantly should be sought.*
3. The institution should keep abreast of emerging evaluation techniques.
4. The institution should engage in systematic efforts to evaluate the quality of graduates.
5. Evaluation of graduates should include evidence of their performances in relation to program objectives.*
6. Teacher education units should evaluate graduates when they complete programs of study and when they enter the teaching profession.*

With regard to program review, the standards seem to tell us that:

1. Results obtained from evaluating graduates should be used in the study, development, and improvement of the teacher education program.
2. Teacher education units should regularly evaluate its teacher education programs and use the results of its evaluation in the modification and improvement of these programs.*
3. The plan followed in the evaluation of program effectiveness should be described.
4. The institution should engage in the continuous review of program objectives.*

With regard to long-range planning, the standards seem to tell us that:

1. The institution should have a long-range plan for its development and incorporates therein a plan for the development of its teacher education program.
2. The long-range plan of the institution should reflect a commitment to multicultural education.*

Context and Resources

The framers of the 1957 Standards labeled this section Facilities and Instructional Materials. In subsequent revisions the title "Resources and Facilities" was used until, in the most recent revisions (1986, 1987, 1990), "Resources" have been lumped together with "Governance."

Constants. In the area of Context and Resources six of the original ten criteria have received constant emphases throughout the eleven standards. Five have been mentioned in one form or another in every issue.

1. *Library holdings should be adequate in number, scope quality, and currency to meet the needs of the number of students enrolled.*
2. *Library holdings should be adequate to support the instructional, research and school service programs (or the professional education programs) of the institution.*
3. *An identifiable and relevant media and materials collection should be available and accessible to students and faculty.*
4. *Adminstrative, instructional, and research facilities should be adequate in terms of operational requirements.*

5. *The institution should provide physical facilities and other resources essential to the instructional and professional activities of an acceptable teacher education program.*

One requirement was mentioned in 1957 and in 1990 and in some but not all intervening issues:

6. *The quarters should include adequate conference rooms, office space and classrooms.*

Changes.

Ten changes introduced after 1957 have been retained through the most recent revisions.

Beginning with the 1982 standards and persisting until today there is an insistence that:

7. *Physical facilities should be accessible to individuals with disabilities.*

The three most recent revisions, 1986-1990, have proposed:

8. *Systematic and periodic reviews of library and media materials should be conducted and used to make acquisition decisions.*

With the inclusion of personnel and funding resources, a number of requirements have also been added in the three most recent revisions.

9. *Sufficient numbers of faculty, including cooperating teachers and field based supervisors, should exist to support programs offered by the unit.*

10. *Sufficient administrative, clerical and technical staff should be available to support the programs offered.*

The 1986 standards and subsequent issues set student/faculty ratios.

11. *For supervision or practicum experiences the student/faculty ratio should not exceed 18/1.*

A limitation was added to the 1987 standard.

12. *The use of part-time faculty and graduate students who teach in professional education programs should be limited to prevent fragmentation of instruction and the erosion of quality.*

Funding Resources added three further queries in 1986.

13. *Budget trends over the past five years and future planning should indicate continued support for professional education programs.*

14. *The unit should allocate available resources in a manner that allows each program to meet its mission and needs.*

15. *An institutional long-range plan for renovation/updating of physical facilities should exist.*

A third question was added in 1987.

16. *Financial support during the past five years should be adequate for books, periodicals, films, filmstrips, computer hardware and software and similar resources.*

With respect to regulations existing in 1957 that have fallen by the wayside, we find included in the initial standards detailed expectations. Four requirements present in the 1957 standards have not persisted until the present standards.

Two requirements were mentioned from 1957-1960.

17. *Equipment for duplicating should be available.*

18. *There should be special facilities for remedial work in reading and speech.*

An additional two requirements were stipluated only in 1957.

19. *Facilities should include the placement office, transportation, exhibit space, and one-way vision screens.*

20. *Facilities for necessary faculty travel or a substitute that will not hamper the program should be provided.*

Other requirements have come and gone in that they were introduced after 1957 but disappeared before 1990.

Beginning in 1967 and ending in 1982 the standards required that:

21. *The library should be viewed as the principal educational materials resource, information storage, and retrieval center.*

22. *Library services must assure both students and faculty access to the materials.*

23. *Programs preparing teachers should ensure they can make use of media and materials and that faculty make use of modern technology in teacher preparation programs.*

For the years 1969-82 the standards required that:

24. *Physical facilities should be readily accessible so that faculty and students may effectively pursue instructional objectives.*

25. *Library acquisition policies should reflect the recommendations of both faculty and national professional organizations.*

26. *The recommendations of faculty and/or national professional organizations should be considered in maintaining and improving the quality of the (media) center.*

One recommendation appeared in only the 1967 and 1969 issues of the standards.

27. *Computer time should be available to graduate students for research.*

One requirement appeared only in 1969.

28. *Serious consideration should be given to the recommendations of faculty for improving physical facilities.*

In 1977 and until 1982 two recommendations were made.

29. *Library acquisition policies should reflect a commitment to multicultural education.*

30. *Multicultural teaching-learning materials and instructional media should reflect the cultural diversity of American society.*

With the inspection of advanced programs in 1967, additional emphases were added.

From 1967-79 it was stipulated that:

31. *Faculty and students should have clinical, laboratory, instructional, and research facilities necessary to support advanced programs.*

From 1967-82 three requirements were given.

32. *Library resources should be substantially larger and pertinent to the kind and level of graduate programs.*

33. *The full range of diverse institutional resources: human, instructional, physical and financial found throughout the many units of the institution should be available to students and faculty.*

34. *The additional resources needed to instruct graduate students in research skills should be available.*

In 1977 and continuing through 1982 the standards required that:

35. *A greater number and variety of instructional materials and media should be available to students and faculty in advanced programs.*

Table 7 is a display of the 35 criteria related to context and resources and the standards in which they are found.

Table 7 here

Discussion of findings for context and resources.

A total of 35 criteria related to the context and resources standards have been noted. Six have been constant or more so since 1957. Ten introduced after 1957 are still in force. Thus it appears that 16 are survivors. Nineteen then, have not survived. Four deal with requirements for building facilities; five relate to library facilities; one has to do with the instructional media center; three refer to requirements for instructional material; and six relate to resources. These 35 criteria may be thought about under the following five rubrics: (a) building facilities, (b) library, (c) instructional media center, (d) materials of instruction, and (e) resources.

With regard to building facilities, the standards seem to tell us that:

1. Administrative, instructional, and research facilities should be adequate in terms of operational requirements.
2. Physical facilities should be readily accessible so that faculty and students may effectively pursue instructional objectives.*
3. Serious consideration should be given to the recommendations of faculty for improving physical facilities.*
4. Physical facilities should be accessible to individuals with disabilities.
5. Placement office, transportation, exhibit space, and one-way vision screens should be provided.*
6. The quarters should include adequate conference rooms, office space and classrooms.
7. There should be special facilities for remedial work in reading and speech.*
8. Faculty and students should have clinical, laboratory, instructional, and research facilities necessary to support advanced programs.*
9. An institutional long-range plan for renovation/updating of physical facilities should exist.

With regard to library facilities, the standards seem to tell us that:

1. Library holdings should be adequate in number, scope, quality, and currency to meet the needs of the number of students enrolled.

2. They should be adequate to support the instructional, research and school service programs, or the professional education programs, of the institution.
3. The library should be viewed as the principal educational materials resource, information storage, and retrieval center.*
4. Library services should assure both students and faculty access to the materials.*
5. Library acquisition policies should reflect the recommendations of both faculty and national professional organizations.*
6. Library acquisition policies should reflect a commitment to multicultural education.*
7. Systematic and periodic reviews of library and media materials should be conducted.
8. Library resources for graduate programs should be substantially larger and pertinent to the kind and level of graduate programs.*

With regard to the instructional media center, the standards seem to tell us that:

1. An identifiable and relevant media and materials collection should be available and accessible to students and faculty.
2. The recommendations of faculty and/or national professional organizations should be considered in maintaining and improving the quality of the media center.*

With regard to materials of instruction, the standards seem to tell us that:

1. Programs preparing teachers should ensure they can make use of media and materials and relatedly that faculty make use of modern technology in teacher education programs.*
2. A greater number and variety of instructional materials and media should be available to students and faculty in advanced programs.*
3. Multicultural teaching-learning materials and instructional media should reflect the cultural diversity of American society.*

With regard to resources, the standards seem to tell us that:

1. The institution should provide other resources essential to the instructional and professional activities of an acceptable teacher education program.
2. Sufficient numbers of faculty, including cooperating teachers and field based supervisors, should exist to support programs offered by the unit.
3. Sufficient administrative, clerical and technical staff should exist to support the programs offered.
4. For supervision or practicum experiences the student/faculty ratio should not exceed 18/1.
5. Part-time faculty and graduate students who teach in professional education programs should be limited to prevent fragmentation of instruction and the erosion of quality.
6. Budget trends over the past five years and future planning should indicate continued support for professional education programs.

7. The unit should allocate available resources in a manner that allows each program to meet its mission and needs.
8. Financial support during the past five years should be adequate for books, periodicals, films, filmstrips, computer hardware and software, and similar resources.
9. Equipment for duplicating should be available.*
10. Computer time should be available to graduate students for research.*
11. The additional resources needed to instruct graduate students in research skills should be available.*
12. The full range of diverse institutional resources: human, institutional, physical and financial found throughout the many units of the institution should be available to students and faculty.*
13. Facilities for necessary faculty travel or a substitute that will not hamper the program should be provided.*

Presentation and Discussion of Overall Results

Recall the purpose of the study is to address two general and four specific questions.

The first general question and its four related specific questions are:

1. What NCATE criteria have remained constant and which have changed?

a. What criteria introduced in the 1957 standards remain essentially the same today?

b. What criteria introduced after 1957 remain essentially the same?

c. What criteria introduced in 1957 no longer exist? and,

d. What criteria introduced after 1957 no longer exist?

Data contained in Tables 2-7 presented earlier and Tables 8-13 that follow enable us to answer these questions.

Tables 8-13 here

About half (55 percent) of the criteria contained in the original Standards remain (see Table 8 column 3). All target areas had an average or better chance of succeeding except criteria related to the curriculum.

Exactly half of the criteria introduced after 1957 remain (see Table 9 column 3). In this case both curriculum and context-resources did less well. Only 22 percent of the criteria for curriculum and 45 percent of the criteria for context-resources survived.

Table 10 indicates percentages of criteria that have survived regardless of when they were introduced into the standards. In essence, it summarizes Tables 9 & 10 and shows that the target area of curriculum is least stable and that overall, a criterion has about a fifty-fifty chance of survival.

A total of 45% of the initial standards are not present in the newest standards (see Table 11 column 3). Criteria related to evaluation and

faculty are most stable, while criteria related to curriculum and students are least stable.

Fifty percent of the criteria introduced after 1957 have subsequently disappeared (see Table 12 column 3). Criteria related to governance (11%) and faculty (12.5%) have been least likely to disappear while criteria related to curriculum have a 78% chance of being dropped from the standards.

Table 13 indicates percentages of criteria that have come and gone. A total of 48% of all NCATE criteria ever mentioned in the standards have disappeared. Criteria related to students, evaluation and context/resources have about a 50% chance of disappearing. Criteria related to curriculum are even more unstable with a 71% chance of disappearing. Governance and faculty criteria are considerably more stable.

The second general question to which the study was directed is; What is the overall, aggregate or collective wisdom of persons who framed the various sets of standards? The answer is the accumulation of criteria under goverance (Table 2), students (Table 3), faculty (Table 4), curriculum (Table 5), evaluation (Table 6), and context and resources (Table 7).

Conclusions. What can be concluded from inspection of the aggregation of NCATE Standards?

First, a very large number of criteria (145) have been seen to be appropriate and necessary for use in judging preparation programs. Alan Tom (1981), a scholarly critic of NCATE, proposes that the criteria can

and should be reduced to four (that professional education have adequate financial support, selective admission standards, a vigorous faculty and one that is involved in K-12 schools). Clearly at issue are the number of criteria.

Second, about half of the criteria introduced survive (75 of 145). We cannot judge whether this is high or low, good or bad. Relatedly the target areas of curriculum and context/resources are least stable.

Third, the criteria reflect many beliefs and values. For example, it is evident that a high value is placed upon control of educational preparation by professional educators. What is not clear and what has been challenged is the validity of the beliefs and values, hence the criteria themselves. A number of observers have raised the question of criterion validity including Koerner (1962), Clapp (1963), Larson (1979), Tom (1980 a, b) and Gollnick and Kunkel (1986). Larson, a long-time NCATE official, notes "Validity has not been established for any NCATE [criterion]" (p. 20).

Fourth, and relatedly, the criteria *seem* to be given equal weight or importance. Some, including Watts (1982), ask whether that should be the case. Aren't certain criteria of much greater importance?

Fifth, the criteria vary in their clarity. Observers, including Major (1965), Cottrell (1967), Larson (1979), Tom (1980 a, b), Wheeler (1980), Gollnick and Kunkel (1986) and Roames (1987) have noted this problem and have called for better operational definitions. Lack of clarity creates a huge reliability problem.

Sixth, and relatedly, some seemingly important qualities of preparation programs are absent. For example, it could be argued that the organizational climate of the educational preparation unit contributes to the unit's vitality and output, yet it is not of concern.

Thus, among the conclusions that could be drawn is that the evaluation of professional education programs is plagued by some of the age-old problems of measurement including: (a) criterion clarity, (b) criterion deficiency or the omission of a pertinent element from the criteria, (c) criterion contamination or the introduction of erroneous elements into the criteria, and (d) criterion scale-unit bias or the treatment of scale units as if they were equal when they are not and, last but not least, (e) overall criterion validity.

If the important enterprise of preparing educational personnel is to go forward, then it is encumbent upon state approval and national accreditation officials and stakeholders to take the next step which is to address the validity of the criteria used in program evaluation and the related measurement problems. Too much is at stake not to pursue this task to its logical conclusion. What really counts, toward what end?

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About the authors. Cruickshank is professor and coordinator of the Teacher Education Program Area at Ohio State University. Cruz is an associate professor in that program. Troyer is with the State of Ohio Office of Teacher Education and Certification. McCullough from Canada and Reynolds from Australia are doctoral candidates in teacher education at Ohio State.

Table 1. Illustrative display indicating a sample NCATE criterion directed toward the target governance and the NCATE Standards by year wherein that criterion appears.

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
1. A single designated agency should be responsible for establishing goals, coordinating curriculum, student admission and student and program evaluation.	X	X	X	X	X	X	X	X	X	X	X

Table 2. Criteria contained in Standards related to governance

Criteria	Standards in which criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
1. A single designated campus unit should be responsible for coordinating professional education programs.	X	X	X	X	X	X	X	X	X	X	X
2. A professional educator should be responsible for all unit functions.	X	X	-	-	-	X	X	X	X	X	X
3. The unit should be organized to facilitate policy making and administration regarding goals; designing, implementing and evaluating programs; admitting students, selecting faculty, staff development; identifying resources; and, overall coordination and articulation.	X	X	X	X	X	X	X	X	X	X	X
4. Policies governing professional education should be agreed upon and applied consistently across programs.	X	X	X	-	-	-	X	X	X	X	X
5. Faculty should be in control of all phases of graduate program (after '87 "shared" as in 5 above).	-	-	X	X	X	X	X	X	X	X	X
6. Faculty should be systematically involved in shared decision making related to the undergraduate program (after '87 "shared" with other professional educators including teachers and students).	-	-	-	X	X	X	X	X	X	X	X
7. Long range planning for both basic and advanced programs should be part of the university's overall plan.	-	-	X	X	X	X	X	X	X	X	X
8. Courses and programs taught nights or weekends at other than main campus should be of the same quality as campus-based work.	-	-	-	X	X	X	X	X	X	X	X

Table 2. Criteria contained in Standards related to governance (continued)

Criteria	Standards in which criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
9. The agency or unit responsible for professional education programs should be responsible for establishing linkages with other agencies both inside and outside the university which also are professional stakeholders.	-	-	-	-	-	-	X	X	X	X	X
10. The education unit's mission should be in keeping with and related to the university's.	-	-	-	-	-	-	-	-	X	X	X
11. Students and faculty should be guaranteed due process.	-	-	-	-	-	-	-	-	X	X	X
12. Students and practicing teachers should be involved in policy making (related to 5 above).	-	-	-	-	-	-	-	-	X	X	X
13. All responsibilities for either policy enactment or implementation of specific professional education functions should be fixed.	X	X	-	-	-	-	X	X	-	-	-
14. The education unit should be guided by clear objectives. (May be related to 3 and 7 above).	X	X	-	-	-	-	-	-	-	-	-
15. The education unit should test new and promising programs.	X	X	-	-	-	-	-	-	-	-	-
16. A purpose of the education unit should be to prepare teachers to provide instruction in a multicultural society.	-	-	-	-	-	X	X	X	-	-	-

Table 3. Criteria contained in Standards related to students.

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
1. Only persons of professional promise should be admitted to and retained in preservice education programs and advanced programs.	X	X	X	X	X	X	X	X	X	X	X
2. Initial screening and later monitoring students should occur at various points in their program.	X	X	X	X	X	X	X	X	X	X	X
3. Teacher education units should have a well-defined plan of counseling delivered by competent persons.	X	X	X	X	X	X	X	X	X	X	X
4. At regular intervals teacher education units should take into account the achievement of prospective teachers in each area of professional studies as a basis for retention.	-	-	X	X	X	X	X	X	X	X	X
5. Teacher education units should engage in a process of continuous selection whereby only those candidates demonstrating personal characteristics appropriate to the requirements of teaching will be retained in the program.	-	-	X	X	X	X	X	X	X	X	X
6. Multiple measures should be used to assess students.	-	-	X	X	X	X	X	X	X	X	X
7. Alternative admissions criteria should exist in order to permit participation of individuals from underrepresented groups and other students as determined by the unit.	-	-	-	X	X	X	X	X	X	X	X
8. Teacher education unit's admission procedures should encourage the recruitment of a culturally diverse student population with potential for professional success in the schools.	-	-	-	-	-	X	X	X	X	X	X

Table 3. Criteria contained Standards related to students (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
9. Admissions standards and acceptable levels of performance for exit from programs should be published and monitored.	-	-	-	-	-	X	X	X	X	X	X
10. Students admitted to professional education programs should be proficient in communication and other basic skills and exhibit depth and breadth in the liberal arts and their teaching specialty.	-	-	-	-	-	-	-	-	X	X	X
11. Teacher education units should assess the academic and professional competence of education students prior to issuing or recommending certification.	-	-	-	-	-	-	-	-	X	X	X
12. Teacher education units should provide education students access to publications describing program requirements and institutional policies, including clear statements of due process.	-	-	-	-	-	-	-	-	X	X	X
13. Teacher education units should make provisions for informing secondary and college students about the nature of the teaching profession, requirements for entry, and the teacher education program offered by the institution.	X	-	-	-	-	-	-	-	-	-	-
14. Teacher education units should be prepared to accept full responsibility for the level of transfer students completing the curricula or for those transferring to other education agencies.	X	-	-	-	-	-	-	-	-	-	-

Table 3. Criteria contained in Standards related to students (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
15. Teacher education units should maintain a comprehensive system of records for all persons preparing to teach.	X	X	X	X	-	-	-	-	-	-	-
16. Criteria for admission and retention should be in addition to the general policies and procedures for admitting students to the institution as a whole.	-	X	X	X	X	X	X	X	-	-	-
17. Teacher education units should make provision for expression of views of prospective teachers in teacher education programs.	-	-	X	X	X	X	X	X	-	-	-
18. Students admitted to advanced programs must give evidence of the likelihood of successful program completion.	-	-	X	X	X	X	X	X	-	-	-
19. Programs of study for students in advanced programs should be jointly planned by the student and a faculty member.	-	-	-	X	X	X	X	X	-	-	-
20. Programs of study for doctoral candidates should be approved by a faculty committee.	-	-	-	X	X	X	X	X	-	-	-
21. Sponsorship of each thesis, dissertation, or field study must be assigned to a qualified faculty member.	-	-	-	X	X	X	X	X	-	-	-
22. Student advisory services should provide for advisement from orientation to teaching through professional placement.	-	-	-	-	-	X	X	X	-	-	-
23. Follow-up counseling of teacher education students screened out of the teacher education program should occur in order to assist such students in redirecting toward another goal.	-	-	-	-	-	X	X	X	-	-	-

Table 3. Criteria contained in Standards related to students (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
24. Students admitted to advanced programs should show evidence that their professional objectives are compatible to the program selected.	-	-	X	-	-	-	-	-	-	-	-

Table 4. Criteria contained in Standards related to faculty.

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
1. Faculty should demonstrate a commitment to and evidence of inquiry activities that support their field of specialization.	X	X	X	X	X	X	X	X	X	X	X
2. Faculty should be qualified for for their assignments in professional education programs. (exceptional expertise, post-graduate study and/or terminal degree)	X	X	X	X	X	X	X	X	X	X	X
3. Faculty should continuously demonstrate competence in teaching, scholarly competence and service.	X	X	X	X	X	X	X	X	X	X	X
4. Part-time and adjunct faculty should meet the requirements for appointment to the full-time faculty and are employed when they can make a special contribution to the teacher education program.	X	X	X	X	X	X	X	X	X	X	X
5. Faculty should be actively involved in professional associations and provide education-related services at the local, state, national, and/or international levels in their areas of expertise and assignment.	X	X	-	-	-	-	-	-	X	X	X
6. Members of the teacher education faculty should have continuing association with elementary and secondary schools.	-	X	X	X	X	X	X	X	X	X	X
7. Provision should be made for supporting services that permit them to fulfill their instructional, research, and other responsibilities at a high level of performance.	-	-	X	X	X	X	X	X	X	X	X
8. The composition of the faculty in the education unit should reflect cultural diversity.	-	-	-	-	-	X	X	X	X	X	X

Table 4. Criteria contained in Standards related to faculty (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
9. Faculty should view themselves as members of the training and research arms of the teaching profession.	-	-	-	-	-	-	-	-	X	X	X
10. Supervisors of field-based experiences should have training in supervision as well as professional experiences in the school setting in which that supervision takes place.	-	-	-	-	-	-	-	-	X	X	X
11. The assignment of graduate assistants to instructional roles should be limited to their areas of expertise as demonstrated by degrees held, formal study, and experience.	-	-	-	-	-	-	-	-	X	X	X
12. Cooperating teachers should have a minimum of three years of experience in the areas they are supervising and are certified for the areas in which they are teaching or working.	-	-	-	-	-	-	-	-	X	X	X
13. Evaluation of faculty should be based upon data designed to identify continuing competence in teaching, scholarly competence, and service. Evaluation data should form the basis for decisions on salary, promotion, and tenure.	-	-	-	-	-	-	-	-	X	X	X
14. There should be sufficient numbers of faculty to support programs offered by the unit.	-	-	-	-	-	-	-	-	X	X	X
15. Each advanced degree program leading to a doctorate should have at least 3 full-time faculty who have earned doctorates in the field of specialization for which the degree is offered.	-	-	-	-	-	-	-	-	X	X	X

Table 4. Criteria contained in Standards related to faculty (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
16. The teaching load of undergraduate faculty should be no more than the equivalent of 12 semester hours.	-	-	X	-	-	-	-	-	X	X	X
17. Instructional resources for supervision of practicum experiences should not exceed a ratio of 18 full-time equivalent students to one full-time equivalent faculty member.	-	-	-	-	-	-	-	-	X	X	X
18. Evaluations of faculty should be systematically used to improve teaching, scholarly and creative activities, and service within the unit.	-	-	-	-	-	-	-	-	X	X	X
19. The use of part-time faculty and graduate students who teach in professional education programs should be limited.	-	-	-	-	-	-	-	-	-	X	X
20. A majority of the courses in professional education offered during any semester or term should be taught by regular full-time faculty members.	X	X	-	-	-	-	-	-	-	-	-
21. No one person should be assigned to teach all the professional education courses.	X	X	-	-	-	-	-	-	-	-	-
22. Ranks, degrees, experience backgrounds, salaries, and conditions of work should compare favorably with other faculty members carrying work of comparable level in the institution.	X	-	-	-	-	-	-	-	-	-	-
23. Faculty in education offering a doctorate should include at least one full-time person with specialization in the field in which a degree is offered, and 3-5 persons who hold the doctorate in complementary fields for each specialization field.	-	-	X	X	X	X	X	X	-	-	-

Table 4. Criteria contained in Standards related to faculty (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
24. Institutional policies should reflect a commitment to multicultural education in the recruitment of full-time faculty members.	-	-	-	-	-	X	X	X	-	-	-

Table 5. Criteria contained in the Standards related to curriculum.

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
1. A sound general education should ensure that all teachers will be broadly educated and cultured persons.	X	X	X	X	X	X	X	X	X	X	X
2. There should be judicious selection of field sites and the establishment of exemplary working relationships between these sites and the university campus.	X	X	X	X	X	X	X	X	X	X	X
3. The curriculum should be well planned and sequenced.	X	X	X	X	X	X	X	X	X	X	X
4. An institution should plan curriculum according to principles that the faculty can defend.	X	-	-	-	-	-	-	-	-	X	X
5. The total pattern for each teacher education curriculum should provide general education, professional education, and subject specialization.	X	X	-	-	-	-	-	-	X	X	X
6. The curriculum should be jointly determined by academic and professional faculty.	-	-	X	X	X	X	X	X	X	X	X
7. Guidelines developed by national learned societies and professional associations should be used in program planning.	-	-	X	X	X	X	X	X	X	X	X
8. The scope of the general education curriculum should include such areas as mathematics, science, history, philosophy, literature, the arts and communications skills.	-	-	X	X	X	X	X	X	X	X	X
9. Attention should be given to multicultural education in both the general and professional education components and field-based experiences.	-	-	-	-	-	X	X	X	X	X	X

Table 5. Criteria contained in the Standards related to curriculum (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
10. The curriculum should provide the knowledge and skills required in the education of exceptional learners.	-	-	-	-	-	-	-	X	X	X	X
11. Institutions offering graduate curricula for school personnel should provide substantial field service to the schools relating to the graduate curricula offered.	X	-	-	-	-	-	-	-	-	-	-
12. Summer study should be restricted to elective courses with limitations imposed upon both undergraduates and graduate students.	X	-	-	-	-	-	-	-	-	-	-
13. Curriculum credit earned through part-time extension or off-campus study courses should be limited.	X	X	-	-	-	-	-	-	-	-	-
14. Persons with full-time employment should be limited in the academic work they may take while so employed.	X	X	-	-	-	-	-	-	-	-	-
15. Students should be expected at some point to commit themselves to a curriculum and follow it to completion.	X	X	-	-	-	-	-	-	-	-	-
16. Undergraduate education should occur in no less than four years.	X	X	X	X	-	-	-	-	-	-	-
17. The professional education sequence should include child growth and development, educational psychology, methods, and laboratory experiences.	-	X	-	-	-	-	-	-	-	-	-
18. Prospective teachers should be made aware of the basic nature of educational research.	-	-	X	-	-	-	-	-	-	-	-
19. The general studies component should constitute at least one-third of a four year program.	-	-	X	X	X	X	X	X	-	-	-

Table 5. Criteria contained in the Standards related to curriculum (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
20. The general studies component should to be taught with generalizability rather than specialization as a primary objective.	-	-	X	X	X	X	X	X	-	-	-
21. Specific curricular-instructional experiences should be required such as engaging students in simulations.	-	-	X	X	X	X	X	X	-	-	-
22. A distinction should be made, in the content for the teaching specialty, between the knowledge to be taught to pupils and the teacher's background knowledge.	-	-	X	X	X	X	X	X	-	-	-
23. Special and general methods courses should be taught as the application of teaching and learning theory.	-	-	X	X	X	X	X	X	-	-	-
24. Educational personnel should partake of both a general and professional curriculum.	-	-	X	X	X	X	X	X	-	-	-
25. The professional education component should include content for the teaching specialty, humanistic and behavioral studies, teaching and learning theory, and substantial on and off-campus laboratory experience.	-	-	X	X	X	X	X	X	-	-	-
26. At least 1/2 of the courses and seminars in each advanced program (master's level) in education should be courses which exclude undergraduates.	-	-	X	X	X	X	X	X	-	-	-
27. Each advanced curriculum should include the study of research methods and findings.	-	-	X	X	X	X	X	X	-	-	-
28. Each doctoral curriculum should include the designing and conducting of research.	-	-	X	X	X	X	X	X	-	-	-

Table 5. Criteria contained in the Standards related to curriculum (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
29. Policies should preclude the granting of graduate credit for study which is remedial or which is designed to remove deficiencies in meeting entrance requirements to advanced programs.	-	-	X	X	X	X	X	X	-	-	-
30. Full-time residential study should be required for students pursuing the doctorate.	-	-	X	X	X	X	X	X	-	-	-
31. Programs of study should be individualized at the advanced level.	-	-	X	X	X	X	X	X	-	-	-
32. Teacher education faculty should control admissions, planning, staffing, and degree requirements.	-	-	X	X	X	-	-	-	-	-	-
33. At least 2/3 of the courses and seminars in each doctoral program in education should be courses which exclude undergraduates.	-	-	-	X	X	X	X	X	-	-	-
34. Students should participate in program design, evaluation, and modification processes.	-	-	-	-	-	X	X	X	-	-	-

Table 6. Criteria contained in Standards related to evaluation.

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
1. The plan followed in the evaluation of program effectiveness should be described.	X	X	X	X	X	X	X	X	X	X	X
2. Results obtained from evaluating graduates should be used to develop and improve the teacher education program (under Relationship to world of practice from 1986 to the present).	-	-	X	X	X	X	X	X	X	X	X
3. Teacher education units should keep abreast of emerging evaluation techniques.	-	-	X	X	X	X	X	X	X	X	X
4. Teacher education units should engage in systematic efforts to evaluate the quality of graduates.	-	-	X	X	X	X	X	X	X	X	X
5. Teacher education units should have evidence of the quality of teachers it has prepared.	-	-	X	X	X	X	X	X	X	X	X
6. Teacher education units should have a long range plan and utilize it to improve their teacher education program (under governance and resources from 1986 to the present).	-	-	X	X	X	X	X	X	X	X	X
7. The institution should engage in the continuous review of program objectives.	-	X	-	X	X	X	X	X	X	-	-
8. Evaluation should be conducted by the best means presently available and improved means of evaluation should be sought.	-	-	X	X	X	-	-	-	-	-	-

Table 6. Criteria contained in Standards related to evaluation (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
9. Teacher education units should evaluate graduates when they complete programs of study and when they enter the teaching profession.	-	-	X	X	X	X	X	X	-	-	-
10. Evaluation of graduates should be based upon their performances in relation to program objectives.	-	-	-	X	X	X	X	X	-	-	-
11. The long-range plan of the institution should reflect a commitment to multicultural education.	-	-	-	-	-	X	X	X	-	-	-
12. Teacher education units should regularly evaluate their programs and use the results of evaluation to modify and improve programs.	-	-	-	-	-	X	X	X	-	-	-

Table 7. Criteria contained in the Standards related to Context and Resources.

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
1. Library holdings should be sufficient in number, scope, quality, and currency to meet the needs of the number of students enrolled.	X	X	X	X	X	X	X	X	X	X	X
2. Library holdings should be adequate to support the instructional, research and school service programs (or professional education programs) of the institution (added the terms quantitatively and qualitatively in 1979 and 1982).	X	X	X	X	X	X	X	X	X	X	X
3. An identifiable and relevant media and materials collection should be available and accessible to students and faculty.	X	X	X	X	X	X	X	X	X	X	X
4. Administrative, instructional, and research facilities should be adequate in terms of operational requirements.	X	X	X	X	X	X	X	X	X	X	X
5. The institution should provide other resources essential to the instructional and professional activities of an acceptable teacher education program.	X	X	X	X	X	X	X	X	X	X	X
6. The quarters should include adequate conference rooms, office space and classrooms.	X	X	-	X	-	-	-	-	X	X	X
7. Physical facilities should be accessible to individuals with disabilities.	-	-	-	-	-	-	-	X	X	X	X
8. Systematic and periodic review of library and media materials should be conducted and used to make acquisition decisions.	-	-	-	-	-	-	-	-	X	X	X

Table 7. Criteria contained in the Standards related to Context and Resources (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
9. Sufficient numbers of faculty, including cooperating teachers and field-based supervisors should exist to support programs offered by the unit.	-	-	-	-	-	-	-	-	X	X	X
10. Sufficient administrative, clerical and technical staff to support programs offered should be available.	-	-	-	-	-	-	-	-	X	X	X
11. For supervision or practicum experiences the student/faculty ratio should not exceed 18/1.	-	-	-	-	-	-	-	-	X	X	X
12. The use of part-time faculty and graduate students who teach in professional education programs should be limited to prevent fragmentation of instruction and erosion of quality.	-	-	-	-	-	-	-	-	-	X	X
13. Budget trends over the past five years and future planning should indicate continued support for professional education programs.	-	-	-	-	-	-	-	-	X	X	X
14. The unit should allocate available resources in a manner that allows each program to meet its mission and needs.	-	-	-	-	-	-	-	-	X	X	X
15. An institutional long-range plan for renovation/updating of physical facilities should exist.	-	-	-	-	-	-	-	-	X	X	X
16. Financial support during the past five years should be adequate for books, periodicals, films, filmstrips, computer hardware and software and similar resources.	-	-	-	-	-	-	-	-	-	X	X
17. Equipment for duplicating should be available.	X	X	-	-	-	-	-	-	-	-	-

Table 7. Criteria contained in the Standards related to Context and Resources (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
18. Facilities should include special facilities for remedial work in reading and speech.	X	X	-	-	-	-	-	-	-	-	-
19. Facilities should include the placement office, transportation, exhibit space, and one-way vision screens.	X	-	-	-	-	-	-	-	-	-	-
20. Facilities for necessary faculty travel or a substitute that will not hamper the program should be provided.	X	-	-	-	-	-	-	-	-	-	-
21. The library should be viewed as the principal education materials resource, information storage and retrieval center.	-	-	X	X	X	X	X	X	-	-	-
22. Library services should assure both students and faculty access to the materials.	-	-	X	X	X	X	X	X	-	-	-
23. Programs preparing teachers should ensure they can make use of media and materials and that faculty make use of modern technology in teacher preparation programs.	-	-	X	X	X	X	X	X	-	-	-
24. Physical facilities should be readily accessible so that faculty and students may effectively pursue instructional objectives.	-	-	-	X	X	X	X	X	-	-	-
25. Library acquisition policies should reflect the recommendations of both faculty and national professional organizations.	-	-	-	X	X	X	X	X	-	-	-
26. The recommendations of faculty and national professional organizations should be considered in maintaining and improving the quality of the media center.	-	-	-	X	X	X	X	X	-	-	-

Table 7. Criteria contained in the Standards related to Context and Resources (continued).

Criteria	Standards in which the criteria appears '57	'60	'67	'69	'70	'77	'79	'82	'86	'87	'90
27. Computer time should be available to graduate students for research.	-	-	X	X	-	-	-	-	-	-	-
28. Serious consideration should be given to the recommendations of faculty for improving physical facilities.	-	-	-	X	-	-	-	-	-	-	-
29. Library acquisition policies should reflect a commitment to multicultural education.	-	-	-	-	-	X	X	X	-	-	-
30. Multicultural teaching-learning materials and instructional media should reflect the cultural diversity of American society.	-	-	-	-	-	X	X	X	-	-	-
31. Faculty and students should have clinical, laboratory, instructional, and research facilities necessary to support advanced programs.	-	-	X	X	-	X	X	-	-	-	-
32. Library resources for graduate programs should be substantially larger and pertinent to the kind and level of graduate programs.	-	-	X	X	X	X	X	X	-	-	-
33. The full range of diverse institutional resources: human, institutional, physical and financial found throughout the many units of the institution should be available to students and faculty.	-	-	X	X	X	X	X	X	-	-	-
34. The additional resources needed to instruct graduate students in research skills should be available.	-	-	X	X	-	X	X	X	-	-	-
35. A greater number and variety of instructional materials and media should be available to students and faculty in advanced programs.	-	-	-	-	-	X	X	X	-	-	-

Table 8. NCATE Criteria Introduced in 1957 That Remain Today?

	Number of Criteria in 1957 Standards	Number of like criteria in 1990 Standards	Percentage Remaining
Governance	7	4	57
Students	6	3	50
Faculty	8	5	63
Curriculum	11	5	45
Evaluation	1	1	100
Context/resources	10	6	60
Totals	43	24	55

Table 9. NCATE Criteria Introduced After 1957 That Remain Today

	Number of criteria introduced after 1957	Number of like criteria in 1990 Standards	Percentage Remaining
Governance	9	8	89
Students	18	9	50
Faculty	16	14	88
Curriculum	23	5	22
Evaluation	11	5	45
Context/resources	25	10	40
Totals	102	51	50

Table 10. Summary of Tables 8 and 9

	Number of Criteria that came & stayed	Total Number of Criteria	Percentage that came & stayed
Governance	12	16	75
Students	12	24	50
Faculty	19	24	79
Curriculum	10	34	29
Evaluation	6	12	50
Context/resources	16	35	46
Total	75	145	52

Table 11. NCATE Criteria Introduced in 1957 That Have Disappeared

	Number of Criteria in 1957 Standards	Number of these criteria that have disappeared	Percentage Disappearing
Governance	7	3	43
Students	6	3	50
Faculty	8	3	38
Curriculum	11	6	55
Evaluation	1	0	0
Context/resources	10	4	40
Totals	43	19	45

Table 12. NCATE Criteria Introduced after 1957 That Have Disappeared

	Number of criteria introduced after 1957	Number of these criteria that have disappeared	Percentage disappearing
Governance	9	1	11
Students	18	9	50
Faculty	16	2	13
Curriculum	23	18	78
Evaluation	11	6	55
Context/resources	25	15	60
Totals	102	51	50

Table 13. Summary of Tables 11 and 12

	Number of criteria that Came & Went	Total number of Criteria	Percentage that came & went
Governance	4	16	25
Students	12	24	50
Faculty	5	24	21
Curriculum	24	34	71
Evaluation	6	12	50
Context/resources	19	35	54
Total	70	145	48